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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/692,962

10/23/2003

Charles Slater

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07/22/2004

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EXAMINER

EL HADY, NABIL M

ART UNIT

PAPER NUMBER

2154

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/692,962

Applicant(s)

SLATER ET AL.

Examiner

Nabil M El-Hady

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-90 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-90 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/29/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. Claims 46-90 are pending in this application.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 46-90 are rejected under the judicially created doctrine of obviousness-

type double patenting as being unpatentable over claims 1-56 of U.S. Patent No.

6,654,796, hereafter "796". Although the conflicting claims are not identical, they are not patentably distinct from each other. Independent claims of the instant application include steps and means for receiving, via HTTP connection, a management request by a network device that includes a URI and management data, and redirecting the request to a second network device in a cluster via a forwarding HTTP connection. The same limitations are disclosed in claims 1, 20, 40, and 56 in "796". All other limitations in the dependent claims of the instant application are also disclosed in the dependent claims of "796".

4. Applicant admitted prior art, hereafter "AAPA", discloses the following in page 12, lines 21-25, page 13, lines 1-4, page 24, and page 27 :

"network devices such as LAN switches need to be configured and managed, because they typically include a number of programmable features that can be changed by a network administrator for optimal performance in a particular network. Without limitation, such features typically include whether each port on the network device is enabled or disabled, the data transmission speed setting on each port, and the duplex setting on each port.

"Many commercially-available network devices contain embedded HTML Web servers, which allow the network device to be configured and managed remotely via a web browser."

"Traditionally, network device installation includes inserting the device into the network and assigning it an IP address, which is a 32-bit number assigned to hosts that wants to participate in a TCP/IP Internet.

"Once a network device has been assigned an IP address, a network administrator can enter the device's IP address or URL into a browser such as .. to access the network device and configure it from anywhere in the Internet".

" HTTP communication usually takes place over TCP/IP connections.... This does not preclude HTTP from being implemented on top of any other protocol on the Internet, or on other networks. HTTP only presumes a reliable transport. Thus any protocol that provides such guarantees can also be used.

"the commander switch uses the Cisco Discovery Protocol CDP to automatically identify candidate network device. However, other similar products known to those of ordinary skill in the art are available from other vendors to accomplish the same task. Alternatively, discovery of candidate network devices may be performed manually...".

5. LAN SWITCHING (submitted by applicant in IDS paper No. 4), hereafter "LANS", discloses the concept of a commander network device (Catalyst 5000, Switch E of Fig. 10-2) that is capable of receiving and redirecting requests to one or more expansion network devices (Switches A, B, C, D, Fig. 10-2). The commander network device and the expansion network devices are all LAN switches.

6. CONFIGURATION and MANAGEMENT (submitted by applicant in IDS paper No. 4), hereafter "CONFMAN", discloses a cluster management station using network management menu for transmitting requests for device configurations including switching mode with store-and-forward mode.

7. WEB-BASED MANAGEMENT (submitted by applicant in IDS paper No. 4), hereafter "WEBM", discloses, among other things, the concept of cluster management station software and GUI for changing switch configuration, monitoring switches and network activity by using HTML page entries and HTTP as an inbound form of communication to access the switch through one of its Ethernet ports, manage the MAC address tables that switch uses to forward traffic between ports, using CDP in the switch to maintain information about neighboring devices, SNMP management, and VLAN management.

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8. In addition, HTTP is well known in the art as a transaction-oriented client/server protocol; it treats each transaction independently. A typical implementation creates a new TCP connection between a client and a server for each transaction. In typical HTTP configurations, a client such as a web browser initiates a request for a resource (see for example Hoffman, Jr. et al, USPN 6,122,657, col. 6; or Chung et al., USPN 6,470,389, cols. 1 and 2.).

9. A combination of the teachings of AAPA, LANS, and CONFMAN should be obvious to one skilled in the art at the time of the invention to provide a cluster of switching devices and a method for redirecting network device configuration data using HTTP protocol. One skilled in the art should be motivated by using embedded HTML Web servers in network devices in order to allow the network device to be configured and managed remotely via a web browser utilizing a protocol such as HTTP as it is well suited for transaction-based application.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 46-61, and 63-90, are rejected under 35 U.S.C. 103(a) as being unpatentable over LANSW in view of AAPA, and further in view of CONFMAN.

12. As to claims 46, 53-56, 59-61, 69-72, 75, and 82-85, LANSW, AAPA, and CONFMAN disclose the invention substantially as claimed including a cluster of network devices, comprising a cluster management station capable of transmitting HTTP requests (normally include identifier and data) and a commander network device capable of receiving said transmitted HTTP requests and redirecting them to one or more expansion network devices, or locally processes the request, and responding back. In addition, LANS discloses the commander network device and the expansion network devices as LAN switches.

13. As to claims 58, 74, 90, the claims are rejected for the same reasons as claims 46, 53-55, 59-61, 69-72, 75, and 82-85 above. In addition, AAPA discloses that many commercially-available network devices contain embedded HTML Web servers, which allow the network device to be configured and managed remotely via a web browser and communicate with HTTP as a transaction-oriented client/server protocol. A typical HTTP implementation creates a new TCP connection between a client and a server for each transaction.

14. As to claims 47-49, 51, 57, 63-65, 67, 73, 76-78, 80, and 86, ideas used to determine whether the entire HTTP request has been received are not new in the art. Official notice is taken that both the concept and advantages of comparing data in the request to a predetermined data pattern or parsing the header of the HTTP request to extract a content length field containing the length of the request is well known and expected in the art. It would have been obvious to one skilled in the art at the time of the invention to use such methods in order to control data forwarding.

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15. As to claims 50, 52, 66, 68, 79, and 81, it is well known in the art that a typical HTTP protocol provides two principal types of request messages GET and POST.

16. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over LANSW in view of AAPA, and further in view of CONFMAN as applied to claims 13-15, 17 and 18, and further in view of Chung et al. (USPN 6,470,389), hereafter "Chung".

17. As to claim 62, the concept of providing transparent communication between a client and a participant in a cluster devices through a commander device is also well known in the art. This communication is transparent when an IP address of the commander (which is considered non-private address) is used to reach any participant in a cluster. Chung, for example, discloses the use of such concept (col. 4, lines 1-3). It should be obvious to one skilled in the art at the time of the invention to combine the teachings of Chung to the teachings of LANS, AAPA, and CONFMAN in order to provide transparency and scalability to the client/server system communication (communication between the cluster management station and the LAN switches).

18. As to claims 87-89, Official notice is taken that the both the concept and advantages of providing authentication to redirected requests is well known and expected in the art. It would have been obvious to one skilled in the art at the time of the invention to provide authentication to the redirected request through comparing an IP address of a sender of the request with the receiving means and for checking if such address is associated with a MAC address. Authentication of directed requests would result in enhancing the controlled distribution of such requests.

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19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 46-75 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Venkatraman et al. (US 5,956,487), hereafter "Venkatraman" in view of Wendt et al. (US 6,067,558), hereafter "Wendt"; and further in view of AAPA.

21. As to claim 46, Venkatraman discloses the embedded web access mechanism that enables a web browser to manage a device using a Universal Resource identifier (URI) for the device URL (abstract), e.g., a first network device (40, Fig. 2) for managing a cluster of network devices (10, 50, 51, 52, Fig. 2), through a request (created at device 40 or received by device 40 when device 40 also comprises an embedded web access mechanism), with an embedded web access mechanism, device 40 would obviously comprise an input interface adapted to receive requests via an HTTP connection.

22. Venkatraman does not disclose redirecting the request to a second network device in the cluster indicated by the URI via a forwarding HTTP connection to the second network device. Wendt, on the other hand discloses redirecting requests to a second device (server) indicated by the URI via a forwarding HTTP connection (abstract, and col. 1, lines 36-65). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Venkatraman and Wendt because Wendt

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redirector would facilitate distribution of controlled function throughout different devices resulting in solving a centralized function in one device (col. 1, lines 36-40).

23. As to claim 59, the claim is rejected for the same reasons as claim 46 above.

24. As to claim 75, the claim is rejected for the same reasons as claims 46 and 59 above.

25. As to claims 47-74, 76-86, and 90, it would have been obvious to one skilled in the art at the time of the invention that a combination of Venkatraman's teachings of the concept of embedded web access mechanism including a web browser and a web server in a device, and of Wendt's teachings of redirecting requests to other devices combined with the teachings of AAPA "many commercially-available network devices contain embedded HTML Web servers, which allow the network device to be configured and managed remotely via a web browser.", "Once a network device has been assigned an IP address, a network administrator can enter the device's IP address or URL into a browser such as .. to access the network device and configure it from anywhere in the Internet". A combination of the teachings of Venkatraman, Wendt, and AAPA (including LANS, and CONFMAN) should be obvious to one skilled in the art at the time of the invention to provide a cluster of switching devices and a method for redirecting network device configuration data using HTTP protocol. One skilled in the art should be motivated by using embedded HTML Web servers in network devices in order to allow the network device to be configured and managed remotely via a web browser utilizing a protocol such as HTTP as it is well suited for transaction-based application.

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26. As to claims 87-89, Official notice is taken that the both the concept and advantages of providing authentication to redirected requests is well known and expected in the art. It would have been obvious to one skilled in the art at the time of the invention to provide authentication to the redirected request through comparing an IP address of a sender of the request with the receiving means and for checking if such address is associated with a MAC address. Authentication of directed requests would result in enhancing the controlled distribution of such requests.

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Slater et al. (US 6,654,796) ; Dove et al. (US 6,691,280) ; Brown et al. (US 6,192,281) ; Nixon et al. (US 6,266,726) ; Chang et al. (US 5,958,016) ; Gerszberg et al. (US 6,385,693) ; Haeri et al. (US 6,385,615) ; Blinn et al. (US 6,058,373) ; Van Andel et al. (US 6,314,456) ; Venkatraman et al. (US 6,139,177) ; Venkatraman et al. (US 6,170,007) ; Mayo et al. (US 6,529,936) ; Agranat et al. (US 5,973,696) ; and Law et al. (US 6,330,602) ; Wils et al. (US 6,570,881) ; and Hiscock et al. (US 6,195,349).

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabil M El-Hady whose telephone number is (703) 308-7990. The examiner can normally be reached on 9:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 19, 2004

A handwritten signature in black ink, appearing to read "N. El-Hady", with a long diagonal line extending from the bottom right of the signature.

Nabil El-Hady, Ph.D, M.B.A.
Primary Patent Examiner
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